

## &gt;Human

MQLKIMPKKRRLS-AGRVP----LILFLCQMISALEVPLDPKLLLEDLVQPPTITQQSPKD--YIID-----P----R  
ENIVIQCEAKGKPPSFSWTRNGTHFDIDK-DPLV-TMKPGTGTLIINIMSEGKAETYEGVYQCTARNERGAAVSNNIVV  
RPSRSPLWTKKLEPITLQSGQSLVLPKRPPIGLPPPIIFWM-----DNSFQRLPQSERVSQGLNGDLYFSNVLPED-  
-TRED--YICYARFNHTQTIQQKQPISVKVISVDELNDTI-AANLSDTEFYGAKSSRERPPTFLTPEGNASNKEELRGNV  
LSLECIAEGLPTPIIYWAKEDGMLPK-NR----TVYK-NFEKTLQIIHVSEADSGNYQCIAKNALGAIHH-TISVRVKAA  
PYWITA-PQNLVLSPEGEDGTLICRANGNPKPRISWLTNGVPIEIAIPDDPS-RKIDGD-TIIFSNVQ-ERSSAVYQCNASN  
EYGYLLANAFVNVLAEPRIILTPANTLYQVIANRPALLDCAFFGSPLPTIEWFKGA-KGSALHEDIYVLHENGTLIPVA  
QKDSTGTYTVCARNKLGMAKNEVHLEIKDPTWIVK--QPEYAVVQRGSMVSFECKVKHDHTLSLTVLWLKDNRE--LPSD  
ERF-TVDKDHLLVADVSDDDSGTYTCVANNTLDSVSASAVLSVAVPTPTPAPVYDVPNPPFDLELTDQLDKSVQLSWTPG  
DDNNSPITKFIIEYED--AMHKPGLWHHQTEVSGTQTTAQLKLSPVVNSFRVMAVNSIGKS---LPSEASEOYL---TK  
ASEPDKNPTAVEGLGSEPDNLVITWKPLNGFESNGPGLQYKVSWRQKDGDEWTSVVVAN---VSKYIVSGTPTFPYLI  
KVQALNDMGFAP-EPA-VVMGHSGEDLPMVAPGNVRV-NV-VNSTLAEVHWDVPVPLKSIRGHLQGYRIYYWKTQSSSKRN  
RRHIEKKILTFQGSKTHGMLPGLPEFSHYTLNVRVNVNGKGEASPDRVFNTPGVPSPAPSSLKIVNPTLDSLTLEWDP  
SHPNGILTEYTLKYQPINSTHELGP--LVDLK-IPANKTRWTLKLNLFSTRYKFYFYAQTSAAGSGSQITEEAIVTTVDEAG  
ILPPDVGAGKVQAVNPRISNLTA--AETYANISWEYEGPEHVNIFYVEYGVAGSKEEWRKEIVNGSRFFGLKGLMPGT  
AYKVRV-GAV--GDSGFVSSSEDF-----ET----GPAMASRQVDIATQGWFIGLMCAVAL-LILILLIVCFIRRNKGG  
KYPVKEKEDAHADPEIQPMKEDDGTGFEYSDAEDHKPLKKGSRTPSDRTVKKEDSDDSLVDYGEVNGQFNEDGSFIGQY  
SGKKEKEP-----AEGNESSEAPSPVAMNSFV

## &gt;cattle

MQLKIMPKKRRLS-AGRAP----LMLFLCQMISALEVPLDPKLLLEDLVQPPTITQQSPKD--YIID-----P----R  
ENIVIQCEAKGKPPSFSWTRNGTHFDIDK-DPLV-TMKPGSGTLINIMSEGKAETYEGVYQCTARNERGAAISNNIVI  
RPSRSPLWTKKLEPIILRNGQSLVLPKRPPIGLPPPIIFWM-----DNSFQRLPQSERVSQGLNGDLYFSNVLPED-  
-TRED--YICYARFNHTQTIQQKQPISVKVISVDELNDTI-AANLSDTEFYGAKSHRQRPPTFLTPDGNTSRKEELRGNV  
LSLECIAEGLPTPIIYWKEDGTLPI-NR----TFYR-NFKKTLQIVQVTEADSGNYQCIAKNALGAIHH-TISVTVKAA  
PYWIIA-PQNLVLSPEEDGTLICRANGNPKPRISWLSNGVPIEIAIPDDPS-RKIDGD-TIIFSKVQ-ERSSAVYQCNASN  
EYGYLLANAFVNVLAEPRIILTSANTLYQVIANRPALLDCAFFGSPLPTIEWFKGA-KGSALREDIYVLHENGTLIPVA  
QKDSTGTYTVCARNKLGMAKNDVHLEIKDPTRIIK--QPEYAVVQRGSTVSFECKVKHDHTLIPTVMWLKDHE--LPND  
GRF-TVDKDRLLVADVNDDDGGTYTCVANNTLNDVNSASAVLSVAVPTPTPAPIYDVPNPPFDLELTDQLDRSVQLSWTPG  
DDNNSPITKFIIEYED--AMHEPGLWHHQTEVPGTQTTAQLKLSPVVNSFRVMAENNLGRS---LPSEASEOYL---TK  
AAEPDKNPTAVEGLGSEPDNLVITWKPLNGFESNGPGLQYKVSWRQKDGDEWTSVVVAN---VSKYIVSGTPTFPYLI  
KVQALNDAGFAP-EPA-AVMGHSGEDLPMVAPGNVRV-NV-VNSTLAEVHWDVPVPLKSIRGHLQGYRIYYWKAQSSLTRN  
RRHIEKKILTFQGSKTHGMLPGLPEFSHYTLNVRVNVNGKGEASPDKVFNTPGVPSPAPSSLKIVNPTLDSLTLEWEP  
SHPNGILTEYTLKYQPINSTHELGP--LVDLK-IPANKTRWILKLNLFSTRYKFYFYAQTAAAGSGIQITEEAITTVDEAG  
ILPPDVGAGK--AVYPGISKLTAA--AETSANISWEYEGPELVNIFYVEYGVAGSKEEWRREIVNGSRFFGLKGLMPGT  
AYKVRV-GAE--GDSGFVSSSEDF-----ET----GPAMASRQVDIATQGWFIGLMCAVAL-LILILLIVCFIRRNKGG  
KYPVKEKEDAHADPEIQPMKEDDGTGFEYSDAEDHKPLKKGSRTPSDRTVKKEDSDDSLVDYGEVNGQFNEDGSFIGQY  
SGKKEKEP-----AEGNESSEAPSPVAMNSFV

## &gt;Mouse

-----MPKKKHLs-AGGVP----LILFLCQMISALDVPL-----DLVQPPTITQQSPKD--YIID-----P----R  
ENIVIQCEAKGKPPSFSWTRNGTHFDIDK-DPLV-TMKPGSGTLVINIMSEGKAETYEGVYQCTARNERGAAVSNNIVV  
RPSRSPLWTKERLEPIVLQNGQSLVLPKRPPIGLPPAIIFWM-----DNSFQRLPQSERVSQGLNGDLYFSNVLPED-  
-TRED--YICYARFNHTQTIQQKQPISLKVISVDELNDTI-AANLSDTEFYGAKSSKERPPTFLTPEGNESHKEELRGNV  
LSLECIAEGLPTPIIYWKEDGMLPA-NR----TFYR-NFKKTLQITHVSEADSGNYQCIAKNALGAVHH-TISVTVKAA  
PYWIVA-PQNLVLSPEGENGTLICRANGNPKPRISWLTNGVPIEIALDDPS-RKIDGD-TIIFSNVQ-ESSAVYQCNASN  
KYGYLLANAFVNVLAEPRIILTSANTLYQVIANRPALLDCAFFGSPMPTIEWFKGT-KGSALHEDIYVLHDNGTLIPVA  
QKDSTGTYTVCARNKLGMAKNEVHLEIKDPTRIIK--QPEYAVVQRGSKVSFEKRVKHDHTLIPTIMWLKDNGE--LPND  
ERF-STDKDHLLVSDVKDDGGTYTCTANTLDSASASAVLRVAVPTPTPAPIYDVPNPPFDLELTDQLDKSVQLTWTPG  
DDNNSPITKFIIEYED--AMHDAGLWRHQAEVSGTQTTAQLKLSPVVNSFRVMAENSIGRS---MPSEASEOYL---TK  
AAEPDQNPMAVEGLGTEPDNLVITWKPLNGFQSNPGLQYKVSWRQKDGDEWTSVVVAN---VSKYIVSGTPTFPYLI  
KVQALNDVGFAP-EPA-AVMGHSGEDLPMVAPGNVRV-SV-VNSTLAEVHWDVPVPPKSVRGLHLYYRYWKTQSSSKRN  
RRHIEKKILTFQGTKTHGMLPGLQPYSHYALNVRVNVNGKGEPASTRDGFHTPEGVPSPAPSSLKIVNPTLDSLTLEWDP  
SHPNGILTEYILQYQPINSTHELGP--LVDLK-IPANKTRWTLKLNLFSTRYKFYFYAQTSGVPGSQITEEAITTVDEAG  
IPPPDVGAGK-----GKEEWRKEIVNGSRFFGLKGLMPGT

AYKVRV-GAE--GDSGFVSSSEDF-----ET----GPAMASRQVDIATQGWFIGLMCAVAL-LILILLIVCFIRRNKGG  
 KYPVKEKEDAHADPEIQPMKEDDGTGFEYSDAEDHKPLKKGSRTPSDRTVKKEDSDDSLVDYEGGVNGQFNEDGSFIGQY  
 SGKKEKEP-----AEGNESSEAPSPVAMNSFV

## &gt;Rat

-----MPKKKPLS-AGRAP----LFLFLCQMISALDVPLDPKLLDDLVPPTITQOSPDK--YIID-----P----R  
 ENIVIQCEAKGKPPPSFSWTRNGTHFDIDK-DPLV-TMKPGSGTLVINIMSEGKAETIEGVYQCTARNERGAAVSNNIVV  
 RPSRSPPLWTKERLEPIILRSGQSLVLPSCRPPIGLPPAIIIFWM-----DNSFORLPQSERVSQGLNGDLYFSNVLPED-  
 -TRED--YICYARFNHTQTIQKQPIISLKVIVSDELNDTI-AANLSDTEFYGAKSSKERPPTFLTPEGNEHKEELRGNV  
 LSLECIAEGLPTPVIYWIKEGDTLPV-NR----TFYR-NFKKTLQIIHVSEADSGNYQCIAKNALGAVHH-TISVTVKAA  
 PYWIVA-PHNLVLSPEGENTLICRANGNPKPRISWLTNGVPEIALDDPS-RKIDGD-TIMFSNVQ-ESSAVYQCNASN  
 KYGYLLANAFVNVLAEPRIILTSANTLYQVIANRPALLDCAFFGSPMPTIEWFKGT-KGSALHEDIYVLHDNGTLEIPVA  
 QKDSTGTYTCVARNKLGMAKNEVHLEIKDPTRFIK--QPEYAVVQRGSKVSFECKVKHDHTLIPTILWLKDNGE--LPND  
 ERF-SVDKDHLLVSDVKDEDGGTYTCAANTLDSVSASAVLRVVAAPTPTPAPIYDVPNPPFDLELTNQLDKSVQLTWTTPG  
 DDNNSPITKFIIEYED--AMHEAGLWRHQAEVSGTQTTAQLKLSPVVNSFRVMAENSIGRS---VPSEASEOYL---TK  
 AAEPDQNP TAVEGLGTEPDNLVITWKPLNGFQSNGLQYKVSWRQKDGDEWTSVVAN---VSKYIVSGTPTFPVYLI  
 KVQALNDVGFAP-EPA-AVMGHSGEDLPMVAPGNVRV-SV-VNSTLAEAHWDVPVPPKSVRGLHQGYRIYWKAOSSSKRN  
 RRHIEKKILTFQGSKTHGMLPGLQPYSHYVLNVRVNVNGKGEPPASADRGFHTPEGVPSAPSSLKIVNPTLDSLTLLEWDDP  
 SHPNGILTEYILKYQPINSTHELGP--LVDLK-IPANKTRWTLKLNLFSTRYKFFYFAQTSVGSQITEEAITTVDEAG  
 ILPPDVGAGKVRVSPRIGNVTAAA--AETYANISWEYEGPEHVKFFVEYGVAGSKEEWRKEIVNGSRFFGLKGLMPGT  
 AYKVRV-GAE--GDSGFVSSSEDF-----ET----GPAMASRQVDIATQGWFIGLMCAVAL-LILILLIVCFIRRNKGG  
 KYPVKEKEDAHADPEIQPMKEDDGTGFEYSDAEDHKPLKKGSRTPSDRTVKKEDSDDSLVDYEGGVNGQFNEDGSFIGQY  
 SGKKEKEP-----AEGNESSEAPSPVAMNSFV

## &gt;Chicken

-----MMKEKSIS-ASKAS----LVFFLCQMISALDVPLDSKLLLEELSQPPTITQOSPDK--YIVD-----P----R  
 ENIVIQCEAKGKPPPSFSWTRNGTHFDIDK-DAQV-TMKPNSGTLVVNIMNGVKAAYEGVYQCTARNERGAAISNNIVI  
 RPSRSPPLWTKERLEPNHVREGDSLVLNCRPPVGLPPPPIIFWM-----DNAFORLPQSERVSQGLNGDLYFSNVQPED-  
 -TRVD--YICYARFNHTQTIQKQPIISVKVFS-----TKPVTERPPVLLTPMGSTSNKVELRGNV  
 LLELCIAAGLPTPVIWIKKEGELPA-NR----TFFE-NFKKTLKIIDVSEADSGNYKCTARNTLGSTHH-VISVTVKAA  
 PYWITA-PRNLVLSPEGEDGTLICRANGNPKPSISWLTNGVPIAIAPEPDS-RKVDGD-TIIFSAVQ-ERSSAVYQCNASN  
 EYGYLLANAFVNVLAEPRIILTPANKLYQVIADSPALIDCAYFGSPKPEIEWFRGV-KGSILRGNEYVFHDNGTLEIPVA  
 QKDSTGTYTCVARNKLGKTQNEVQLEVKDPTMIK--QPQYKVIQSAQASFECVIKHDPTLIPTVIWLKDNE--LPDD  
 ERF-LVGKDNLTIMNVTDKDDGTYTCIVNTLDSVSASAVLTVVAAPPTPAIYARPNNPLDLELTGQLERSIELSWVPG  
 EENNSPITNFVIEYED--GLHEPGVWHYQTEVPGSHTTVQLKLSPVVNSFRVIAVNEIGRS---QPSEPSEOYL---TK  
 SANPDENPSNVQIGSEPDNLVITWESLKGFGQSNGLQYKVSWRQKDVDEWTSVVAN---VSKYIVSGTPTFPVYEI  
 KVQALNDLGYAP-EPS-EVIGHSGEDLPMVAPGNVQV-HV-INSTLAKVHWDVPVPLKSVRGLHQGYKVVYWKVQSLSRRS  
 KRHVEKKILTFRGNKTFGMLPGLPEYSSYKLNVRVNVNGKGEPPASPDKVFKTPEGVPSPPSFLKITNPTLDSLTLLEWGGSP  
 THPNGVLTYSYILKFQPINNTHHELGP--LVEIR-IPANESSLILKLNLYSTRYKFFYFNAQTSVGSQITEEAVTIMDEV-  
 -----QPLYPRIRNVTTAA--AETYANISWEYEGPDHANFYVEYGVAGSKEDWKKEIVNGSRFFVLKGLTPGT  
 AYKVRV-GAE--GLSGFRSSEDLF-----ET----GPAMASRQVDIATQGWFIGLMCAVAL-LILILLIVCFIRRNKGG  
 KYPVKEKEDAHADPEIQPMKEDDGTGFEYSDAEDHKPLKKGSRTPSDRTVKKEDSDDSLVDYEGGVNGQFNEDGSFIGQY  
 SGKKEKEP-----AEGNESSEAPSPVAMNSFV

## &gt;Zebrafish]

-----MDGKRSCSLCGGAMIMMMMMISHMTSALEVPL-----DLPQPPTITNOSPDK--YIID-----P----R  
 ENINIFCEAKGKPHPSFSWTRNGTHFDVEK-DPKV-VMMPGTGNLVIDISGE-KAEVYEGVYQCIARNEHGSVAVSNNIVI  
 RQSRSPPLWSKEKNPITVQRGTSILILQCRPPAGLPPPPIIFWM-----DNNFORLPQNSRVSQALNGDLYFSNVIMED-  
 -TRND--YICYARFPHTQTIQKQPIITVKVLDIEAMNDTVLAAFLNGSDFWGDSPSERVPSFLHPPGMESTTMVLKGD  
 LELECIADGLPTPNISWTKVNGELPS-GR----FSFY-SFQKTLKIKEVTEADGGDYRCIAKNRMGSSQH-TITVVVRAA  
 PFWISA-PQNLILAPKETGNLTCVDVGNPKPTITWSVNGNPIESSHNDPS-RKVS DG-VITLSDVQ-TGSSAVYQCNASN  
 DYGYLLANAFVSVLAEPRIILTSLNHEYSVISNSRALLDCASFGSPLPKITWFKDS-Q-SILNSDLYHIHKNGTLEINVA  
 QPQNSGKYTCIASNNLGNKENHVHLQVKEPTRIIR--QPEYKEVQRNSIAVFECKVKHDPTLIPSMIWLKDNGE--LPDD  
 PRF-EVGSDSLTIHDVTEDEGTYTCIRNTLQDSASATLTVV-----EQDPDPTDLELTDQRERSVRLTWTTPG  
 DEHNSPIKFLIQYED--SLHEPGVWLNMTTEVSGTSTTAQLELSPVYYSFRVLALNGVGLS---ESSDPSROYR---TN  
 PAKPDVNP SDVEVSGTSPD TMSWRELSGLESNGPGLQYKVSWRMKDA-EQWTTVTLAN---VSQHVVGTPTFTLYEV  
 TVQAVNDYGE GP-RPE-VVLGYSGENSPTVAPENVKV-SV-QSGTEAEVHWEAVPLSSVRGLKGYKVTYQKMRSLHKQD

YDRENPOVLIFSGEETVGRPLDLPYSHYRLNIRAFNGHGDGPSSTDOQFQTPPEGVPGPPTNVNIRNLNLDSELLVEWTPP  
LEDNGHLTG YLLKYQPI NTTEEAGL--LKEVL-LPANETS YTLDKLTHSTHYKFFLNAMTETGSGPAVTKEAFTEVDEAL  
IRHPAVEAGKAPPAGPMFNGVNSSV--KEDHAVISWEYLGPDG-NVYVEYVVDNSKEPWKTEFVNGTRTF-QIRGLKPGM  
SYRVRL-VAKDHSDATIHS TQEML-----IT----VPAMTNRQAEIATQGWFI GLMCAIAL-LILVLLIVCFIKRNKGG  
KYPVKEKEDAHQDPEIQPMKEDDGTGFEYS DTEDHKPLK-GSRTPSNGTVKKDDSDSLVDYGE GGDGQFNEDGSFIGOY  
SGKKEKDT-----AEGNESSEAPSPV NAMNSFV

>Drosophila]

-----MWRQSTIL-A--AL----LVALLCAGSAESK-----GNRPPRITKQPAPG--ELLFKVAQQNKES----D  
NPFII ECEADGQPEPEYSWIKNGKFDWQAYDNRM-LRQPGRGTLVITIPKDED----RGHYQCFASNEFGTATSNSVYV  
RKAELNAFKDEAAKTLEAVEGEPFMLKCAAPDGFPSPTVNWMIQESI-DGSIKSI-NNSRMTLDPEGNLWFSNVTRED-  
-ASSDFYYACSAT----SVFRSEYKIGNKV-----LLDVKQMGVSASQNKHPPVRQYVSR-RQSLALRGKR  
MELFCIYGGTPLPQT VWSKDGQRIQWSDR----ITQG-HYGKSLVIRQTNFDDAGTYTCDVSNVGVNAQSF SIIILNVNSV  
PYFTKE-PEIATAAEDEEVVFECRAAGVPEPKISWIHNGKPIEQSTPNPR-RTVTDN-TIRIINLV-KGDTGNYGCNATN  
SLGYVYKDVYLVNQAEPP TI-SEAPAAVSTVDGRNVTIKCRVNGSPKPLVKWLRAS-N-WL-TGGRYNVQANGDLEIQDV  
TFSDAGKYTCYAQNKFGEIQADGSLVVKHEHTRITQ--EPQNYEVAAGQSATFRFCNEAHD DDTLEIEIDWWKDGQSIDFEAQ  
PRFVKTNDNSLTI AKTMELDSGEYTCVARTRLDEATARANLIVQ-----DVPNAPKLTGITCQADKA-EIHWEQQ  
GDNRSPI LH YTIQFNT--SFTPASWDAAYEKVPNTDSSFVQMSWPANYTFRVIAFNKIGAS---PPSAHSDSCT---TQ  
PDVPFKNPDNVVGQTEPNNLVISWTPMPEIEHNAPNFHYVSWKRDIPAAAWENNNIFD-WRQNNI VIADQPTFVKYLI  
KVVAINDRGENS-VAAEEVVGYSGEDRPLDAPTNFTMRQI-TSSTSGYMAWTPVSEESVRGHFKGYKIQTW-TENEGEEG  
LREIHVK-----GDTHNALVTQFKPDSKNYARILAYNGRFNGPPSAVIDFDTPEGVPSPVQGLDAYPLGSSAFMLHWKKP  
LYPNGKLTGYKIYYEEVKESY-VGERREYDPHITDPRVTRMKMAGLKPN SKYRISITATTKMGEGSEHYIEKTTLKDAVN  
VAPATPSFSW-----EQLPSDNGLAKFRINWLPSTEGHPGTHFFTMHRIKG-ETQWIRENEEKNSDYQEVGGLDPET  
AYEFRVVSVD--GHFNTE SATQEI-----DTNTVEGPI MVANET-VANAGWFIGMMLALAF-I I I L F I I C I I R R N R G G  
KYDVHDRELANGRRDY----PEEGGFHEYSQPLDNKSAGRQSVSSANKPGVESDT-DSMAEYGDGDTGQFTEDGSFIGOY  
VPGKLOPPVSPQPLNNSAAAHQAAPTAGGSGAAGSAAAAGASGGASSAGGAAASNGGAAAGAVATYV

>Worm

-----M-RLVIA----QFLITQVFAA-----QK---NSIGPPKLEQSGEEVWYHLD-----DEDLLK  
NRLTLRCEADE-NTDRYSWLKDGEPFVIDS-EDVLWEKESQSGSIVFTKPHAS----HOGYYQCFASNIFGTALSNKMHL  
RLGSLEHFPKR DVKLLRVKEGESLTLNCTPPRGTPDPKIVWLYR--SLDDSSVIETIRSRHITVDNEGHLHFSSVELSDG  
KATLV--YECAT--SPVLRGEYRSGDRIQL-----D-----IEPSQDKSHPVKMSVSPSEVTVRAGGQ  
LKLQCFGG RPLPTIFWSKIDGELPK-SRIKDLTSHESDFGRSLIVENVHPDDAGAYECRGRHLV----H-TVNVRVMAA  
PWF EFDPPRDISLPEESTGELECLAGGQPTPIITWSMNGKFLHELAEDSRRVLLDHGRILVRN LNHDLD TGVYQCNASN  
PLGYVFANAFVHVRAHAPFFRMPAARHWKVVLHSTVVLDCVDAAPEAMVRWVDADDRPLQVVEGKNKLPNHTFMVYDV  
NSADEGLYCNVSNKYGINRATNRLQVFKPTYFVRIPTPKRLILEAGETA E V FCEAVADPRLPIRYQWTINGKV--L TES  
QYY-EILPDR LRF RSVRGRHSGIIDCAAITDVDVKLASMQLIVKDVP-----AHPV-VETAHC SERKATVKWVAA  
SDHGDSIKKYIVEMFTDFKKN EWEVINEEVNVNKETFEVDITLTPWVNYTFRVVAVNSHGRSDMKIDGQPKEDWLT CQTR  
PSFPYTNP TGVKGEGTEPDNLVISWKPLDRYYWNAPNQYLVR YKLDEPIHGWT EFLVEDSL-ANFTIIRDQPTFRKYL I  
QVQSVNSVGPSIVEPE-IHHGWSGEDVPDEAPRDFHI-DTQINF T TINF T WNPVDANTVNGHFVGYEIEYKWAENT----  
---IRKYSIKIPANSTYKVINSFHAVTNYSAHIRTRNKRLRSAPSDYVSFAMPEGPPGKVHNLRVYSV GSTAILLQWDAP  
LQPNGRIRGYFISFQ-----NEKNE--TEETY-VIHRQKHYLHEKSEPDTGYKVSVAE TRAGEGPVTLRPVRTWPARI-  
---PDAPIFRVKNIS--LD---SFV--VEWQPNNHSVWKMPG-AAFFVNYTAESSKTWFQSEI I YLPYTEITIRNLKEDQ  
KYFMQG-IAK----DGPRRSESVFLPIKTLNR----DYANRLKEDSLRSAAWFIAVLGVLGIGLFTICLTFCCGNKNRQE  
KFAVRRKE---IEIGHQODNEEEKQFLEY-----GFKN-----